

Template 1: Exploring and analysing different types of data

Group:		Focus area:		
Assessment 1:		Assessment 2:		
% of students below average	% of students at the average	% of students above average	% of students below average	% of students at the average
				% of students above average
Assessment 3:		Things I notice about the data:		
% of students below average	% of students at the average	% of students above average		
Things I wonder about the data:		Questions I have about the data:		
Specific steps for modifying teaching/programs/approaches:				

Table 7.3. Template 1 completed using the sample dataset

Group: Year 3 students				Focus area: Literacy (reading)	
Assessment 1: PAT in reading comprehension				Assessment 2: NAPLAN reading	
% of students below average	% of students at the average	% of students above average	% of students below average	% of students at the average	% of students above average
1/9 = 11%	3/9 = 33%	5/9 = 56%	5/9 = 56%	2/9 = 22%	2/9 = 22%
Assessment 3: English result					
% of students below average	% of students at the average	% of students above average			
4/9 = 44%	4/9 = 44%	1/9 = 11%			
Things I wonder about the data:				Things I notice about the data:	
<ul style="list-style-type: none"> I wonder why students performed so differently in NAPLAN to in the PAT in reading comprehension. I wonder what genre the assessment result is for English (and whether this aligns with the genre of writing in the NAPLAN test). I am interested in learning more about the literacy demands of mathematics and science. How relevant is reading comprehension? 				<ul style="list-style-type: none"> There is quite a different spread between PAT in reading comprehension (mid-high) and NAPLAN/learning area data (mid-low). The learning area data spread is similar to the NAPLAN results (low-mid). Some students have similar results across learning areas (i.e. Markus), but others have quite varied learning area results (i.e. Caitlin). Some students have learning area data that aligns with their PAT/NAPLAN results (i.e. Bobby) and some that are quite different (i.e. Jacob). 	
Things I wonder about the data:				Questions I have about the data:	
<ul style="list-style-type: none"> I wonder why students performed so differently in NAPLAN to in the PAT in reading comprehension. I wonder what genre the assessment result is for English (and whether this aligns with the genre of writing in the NAPLAN test). I am interested in learning more about the literacy demands of mathematics and science. How relevant is reading comprehension? 				<ul style="list-style-type: none"> What led to the significant improvement in the PAT data? When was each set of data collected? Given that NAPLAN reading and the PAT in reading comprehension are reading comprehension assessments and English is more than comprehension alone, is it fair to assume that students are more likely mid-low? 	

Specific steps for modifying teaching/programs/approaches:

- *Break down specific areas of the PAT in reading comprehension and MAPLAN results to see the differences in the strands that were assessed. Are they all very different or are some similar? If they are similar, how can a program be adjusted to cater for this area of weakness?*
- *Find out the role that reading comprehension plays in mathematics and science and see whether these teachers can embed more explicit reading comprehension strategies in their teaching.*
- *Consider the English results and the structure/scaffolding required for the next task to help build the skills needed for the students to pass the learning area. Put strategies in place to make these adjustments ASAP.*
- *Differentiate support for different students (e.g. Bobby has very different needs to Markus).*

As we can see, Template 1 encourages teachers to notice and wonder about trends in the data. It translates the triangulated data into percentages of students who are at, below and above standard, and it encourages the user to ask questions and think about the implications for practice.

Template 2: Exploratory analysis

Guiding questions	Response
What is the particular area of interest?	
What trends do you immediately notice in the data?	
Identify three areas of strength in the data.	
What does each of the strengths tell you about your programs/strategies/teaching and learning?	
How can you celebrate the areas of strength?	
Identify three areas of concern in the data.	
What does each of the areas of concern tell you about your programs/strategies/teaching and learning?	
How can you address/make changes to improve the areas of concern?	

This template does something similar to Template 1 (page 195), but the questioning is more detailed. Again, this template can be used by individuals or teams as they reflect on and analyse data from a cohort, class or learning area.

I have used this form as a leader of curriculum to support data-informed conversations with heads of curriculum. At the end of the academic year, I asked the heads of curriculum to complete this form for one of the year groups for which they were responsible. They chose the focus area and completed the table as best they could with their overall learning area results, and relevant NAPLAN and PAT data for the chosen year level. In our review meeting, I sat with the heads of curriculum and helped them flesh out the answers to their questions. Some leaders find this an easy job to do, while others find it difficult. Either way, it is a good starting point to have a data-informed conversation that can lead to tangible steps for improvement in your school. This

is an area in which the results were generally lower and something that we should focus our attention on.

Table 7.5. Sample dataset highlighting areas of concern

Student name	PAT in reading comprehension	NAPLAN reading	Learning area result – English	Learning area result – science	Learning area result – mathematics
Ella	Stanine 7	NMS+3	C–	B	B
Melanie	Stanine 6	NMS+2	C	B+	B+
Bobby	Stanine 3	At NMS	D+	C+	D
Markus	Stanine 9	NMS+4	A	A–	A
Jacob	Stanine 7	Below NMS	D+	B+	B
Monique	Stanine 5	NMS+2	C+	B	B–
Cameron	Stanine 8	At NMS	D+	B+	C+
Caitlin	Stanine 8	At NMS	D	A–	C
Ann	Stanine 5	At NMS	C+	B	B–

Table 7.6. Template 2 completed using the sample dataset

Guiding questions	Response
What is the particular area of interest?	<i>Year 3 students' literacy, specifically reading comprehension.</i>
What trends do you immediately notice in the data?	<ul style="list-style-type: none"> • <i>There is quite a different spread between PAT (mid–high) and NAPLAN/learning area data (mid–low).</i> • <i>The learning area data spread is similar to the NAPLAN results (low–mid)</i> • <i>Some students have similar results across learning areas (i.e. Markus), but others have quite varied learning area results (i.e. Caitlin).</i> • <i>Some students have learning area data that aligns with their PAT/NAPLAN results (i.e. Bobby) and some that are quite different (i.e. Jacob).</i>
Identify three areas of strength in the data.	<ol style="list-style-type: none"> 1. <i>PAT in reading comprehension results – more than half the students are above average.</i> 2. <i>Science results – the overall results in this learning area are generally higher than English and mathematics</i> 3. <i>Markus's results across standardised testing and learning area results are very good.</i>
What does each of the strengths tell you about your programs/strategies/teaching and learning?	<ol style="list-style-type: none"> 1. <i>Students have good reading comprehension skills – it's not possible to fluke such good results in PAT.</i> 2. <i>The science program is obviously going well. Students are achieving well in this learning area.</i> 3. <i>Markus is a high-performing student who seems to be given the opportunity to be extended.</i>

<p>How can you celebrate the areas of strength?</p>	<ol style="list-style-type: none"> 1. <i>Share the achievement of the group with students / in a newsletter / with staff / at an assembly. See whether much progress has been made from the previous PAT test and celebrate progress too where appropriate.</i> 2. <i>Recognise the achievement of the science department – congratulate the head of the learning area and teachers for their pleasing results. Learn from these teachers about what is working well in science to see whether it is transferable to other learning areas</i> 3. <i>Share Markus's achievements with his house leader, pastoral care teacher, class teachers, parents and with Markus.</i>
<p>Identify three areas of concern in the data.</p>	<ol style="list-style-type: none"> 1. <i>NAFPLAN reading – more than half the students are at or below the national minimum standard.</i> 2. <i>English results – nearly half the students failed the learning area.</i> 3. <i>Bobby's results – his results across standardised testing and learning areas are low.</i>
<p>What does each of the areas of concern tell you about your programs/strategies/teaching and learning?</p>	<ol style="list-style-type: none"> 1. <i>Students' reading comprehension skills were not demonstrated in this assessment – very different results to PAT.</i> 2. <i>Students have not performed as well in English as they did in mathematics and science.</i> 3. <i>Bobby is probably not able to adequately access the curriculum as his literacy levels are low.</i>
<p>How can you address/make changes to improve the areas of concern?</p>	<ol style="list-style-type: none"> 1. <i>More information is required to consider the validity of NAFPLAN vs PAT. Which seems to be a more accurate reflection of the students' ability? Do they have strengths/weaknesses in any similar areas across tests? If so, what changes can be made to address these challenges?</i> 2. <i>It raises questions as to what is happening in English – was the genre particularly difficult, was the teaching team consistent, did cross-marking/moderation occur, are these results accurate? What can be done to address this challenge?</i> 3. <i>Reflect on the differentiation strategies in place for Bobby. Could he use additional support staff assistance? Is behaviour a factor? If so, is there somewhere that he should be positioned in the room to maximise progress? Are adequate structures/scaffolding in place for Bobby? Is a disrupted home life, illness or other extenuating circumstance affecting his performance? Put new strategies in place that you believe could help Bobby.</i>

Template 2 is an exploratory template to get your teachers talking about the data and thinking about the broader implications of the trends. If you want to focus primarily on the positives in a class, cohort or school, Template 3 (page 204) is a better option. This template does similar things to Template 2, but it goes into more depth regarding the areas of strength.

Template 3: Bright spots

Guiding questions	Response
What is the particular focus area?	
What positive trends are immediately identifiable in the data?	
What are three bright spots in the data?	
Why are each of these things bright spots?	
What element of your school program/ approaches has led to the bright spots?	
How can you celebrate these bright spots?	
What learning is there from these bright spots for other areas of the school?	

This template can be a useful approach for introducing teachers to using and analysing data in a cohort, class or learning area. It is less confronting than the previous options because it only focuses on the areas of strength and the good news stories in the data. I have found that when I have used this with teachers, it has sent a powerful message about considering the ‘why’ of the bright spots (rather than ignoring them or merely naming them), how they occurred and whether there is anything to be learned from them. It is a good introductory exercise for sceptics on staff because it does not involve any potential criticisms or negative questions about the impact that they have as a teacher. Remember, build trust first!

As in Templates 1 (page 195) and 2 (page 200), the following is an example of using Template 3 to consider the same sample dataset. For this task, only the positives are required, as this is our focus area. Once this template is completed, you may choose to continue the conversation using some of the guiding questions presented earlier in the chapter.

Table 7.7. Template 3 completed using the sample dataset

Guiding questions	Response
What is the particular focus area?	<i>Year 3 students' literacy, specifically reading comprehension.</i>
What positive trends are immediately identifiable in the data?	<ul style="list-style-type: none"> • <i>There is quite a different spread between PAT (mid-high) and NAPLAN learning area data (mid-low),</i> • <i>The learning area data spread is similar to the NAPLAN results (low-mid)</i> • <i>Some students have similar results across learning areas (i.e. Markus), but others have quite varied learning area results (i.e. Caitlin),</i> • <i>Some students have learning area data that aligns with their PAT/NAPLAN results (i.e. Bobby) and some that are quite different (i.e. Jacob),</i>
What are three bright spots in the data?	<ol style="list-style-type: none"> 1. <i>PAT in Reading Comprehension results – more than half the students are above average,</i> 2. <i>Science results – the overall results in this learning area are generally higher than English and mathematics,</i> 3. <i>Markus's results across standardised testing and learning area results are very good.</i>
Why are each of these things bright spots?	<ol style="list-style-type: none"> 1. <i>Reading comprehension is an important skill for all young people to develop, PAT testing is a reliable measure of students' reading comprehension skills,</i> 2. <i>This learning area is outperforming other learning areas. It is good to see success in science; hopefully these results reflect good engagement and effort on the students' behalf, it is also a reflection of the skills of the science department – they are getting better results out of students than other departments,</i> 3. <i>Markus will be pleased to see his results and it is good that he is able to achieve results commensurate with his ability,</i>
What element of your school program/ approaches has led to the bright spots?	<ol style="list-style-type: none"> 1. <i>Students have good reading comprehension skills – it's not possible to fluke such good results in PAT,</i> 2. <i>The science program is obviously going well. Students are achieving well in this learning area,</i> 3. <i>Markus is a high-performing student who seems to be given the opportunity to be extended.</i>
How can you celebrate these bright spots?	<ol style="list-style-type: none"> 1. <i>Share the achievement of the group with students/in a newsletter/with staff/at an assembly. See whether much progress has been made from the previous PAT and celebrate progress too, where appropriate,</i> 2. <i>Recognise the achievement of the science department – congratulate the head of the learning area and teachers for their pleasing results,</i> 3. <i>Share Markus's achievements with his house leader, pastoral care teacher, class teachers, parents and with Markus.</i>

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<p>What learning is there from these bright spots for other areas of the school?</p>	<ol style="list-style-type: none"> 1. <i>Look at the areas of strength in the PAT in reading comprehension. Consider why a particular strand has a higher success rate — what is happening in the current curriculum for this to occur? Assuming that there is one strand lower than the others, how can we translate this information into practice? How do we explicitly teach the skills the students need?</i> 2. <i>Learn from these teachers about what is working well in science to see whether it is transferable to other learning areas. See whether teachers are explicitly teaching science vocabulary, reading text or doing reading comprehension activities. What could be picked up by other learning areas?</i> 3. <i>Students have the potential to achieve excellent results in this school, and it is important that activities are differentiated across learning areas to ensure that students of all ability levels are being challenged.</i>
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Template 4: Intervention and areas of concern

Guiding questions	Response
What is the particular focus area?	
What are the immediately identifiable trends in the data?	
What are the three most significant areas of concern? <i>(List from most to least pressing.)</i>	
Why are each of these areas concerning?	
What does each of these areas of concern tell you about your programs/strategies/learning and teaching?	
How can you address each of the areas of concern (what changes/strategies/approaches could you use to address these concerns)?	
Do these areas of weakness impact or reflect any other areas of your school programs or approaches?	

The fourth template is for considering areas requiring intervention or areas of concern. Again, this can be useful for analysing a class, cohort or school set of data.

As far as these templates go, Template 4 is expert level! This template requires the user to reflect on some pretty tough questions and look for some hard truths in the data. Of the questions raised in the templates shared so far in this chapter, I believe that these are used the least in schools – but they should be used the most. If completed properly, this template asks the tough questions, identifies the reason for poor results, has the user reflect on the changes that can be made and, in turn, forces the user to reflect on their role in the area of weakness. All of these things, if done by the wrong people at the wrong time, run the risk of activating the survive response as discussed in Chapter 1, causing the use and analysis of data to become counter-productive. The answers to these questions may not necessarily be nice to think about because they might not reflect all that well on the teacher, department or school, but until teachers, middle leaders and school leadership teams really address the issues in their classrooms and schools, they will not make progress. Remember, do not lead with this template – if people fear the data, tread lightly!

As in explorations of the previous templates, the following is an example of using Template 4 with the same sample dataset. Unlike Template 3 (page 204), Template 4 focuses on the data that relates to any areas of concern. Once this template is completed, you may continue the conversation about the data by using some of the guiding questions presented earlier in the chapter.

Table 7.8. Template 4 completed using the sample dataset

Guiding questions	Response
What is the particular focus area?	<i>Year 3 students' literacy, specifically reading comprehension.</i>
What are the immediately identifiable trends in the data?	<ul style="list-style-type: none"> • <i>There is quite a different spread between PAT (mid-high) and NAPLAN/ learning area data (mid-low).</i> • <i>The learning area data spread is similar to the NAPLAN results (low-mid).</i> • <i>Some students have similar results across learning areas (i.e. Markus), but others have quite varied learning area results (i.e. Caitlin).</i> • <i>Some students have learning area data that aligns with their PAT/NAPLAN results (i.e. Bobby) and some that are quite different (i.e. Jacob).</i>
What are the three most significant areas of concern? <i>(List from most to least pressing.)</i>	<ol style="list-style-type: none"> 1. <i>NAPLAN reading – more than half the students are at or below the national minimum standard.</i> 2. <i>English results – nearly half the students failed the learning area.</i> 3. <i>Bobby's results – his results across standardised testing and learning areas are low.</i>

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<p>Why are each of these areas concerning?</p>	<ol style="list-style-type: none"> 1. Reading is an important skill that all students need so they can effectively engage in society in the future. The school should be working with students to improve their literacy skills as much as possible – particularly when they are below average. 2. Students should be succeeding in English – particularly when they are achieving good results in other learning areas. Is there a problem with the learning area? With the marking? It's important to ascertain details about the issue so it can be addressed. 3. Bobby obviously finds literacy difficult. It's important for his engagement in society in the future that he is able to read and write to a level that enables him to gain employment and live and function as a contributing member of society.
<p>What does each of these areas of concern tell you about your programs/strategies/ learning and teaching?</p>	<ol style="list-style-type: none"> 1. Students' reading comprehension skills were not demonstrated in this assessment – very different results to PAT. 2. Students have not performed as well in English as they did in mathematics and science. 3. Bobby is probably not able to adequately access the curriculum as his literacy levels are low.
<p>How can you address each of the areas of concern (what changes/strategies/ approaches could you use to address these concerns)?</p>	<ol style="list-style-type: none"> 1. More information is required to consider the validity of NAPLAN vs PAT. Which seems to be a more accurate reflection of the students' ability? Do they have strengths/weaknesses in any similar areas across tests? 2. It raises questions as to what is happening in English – was the genre particularly difficult, was the teaching team consistent, did cross-marking/ moderation occur, are these results accurate? 3. Reflect on the differentiation strategies in place for Bobby. Could he use additional support staff assistance? Is behaviour a factor? If so, is there somewhere that he should be positioned in the room to maximise progress? Are adequate structures/scaffolding in place for Bobby? Is a disrupted home life, illness or other extenuating circumstance affecting his performance?
<p>Do these areas of weakness impact or reflect any other areas of your school programs or approaches?</p>	<ol style="list-style-type: none"> 1. Reading comprehension seems to be affecting performance in other learning areas – mathematics teachers report that students struggle with problem-solving and deciphering questions and humanities teachers report students' lack of interest in reading texts. This seems to be a schoolwide problem rather an issue with a standardised test. 2. It is worth considering what is working in other learning areas as English results are much lower. Further analysis is required to ascertain student performance in other learning areas to see whether there are any other trends. 3. Is adequate support/mentoring in place for Bobby? This result could lead to broader conversations across the school about not letting students fall through the cracks.

Template 5: Data plan

Data plan rationale:							
Data theme	Types of data considered	Staff involved	Timing	Communication strategy	Analysis required	Actions taken	
Academic outcomes		Senior leaders					
		Curriculum middle leaders					
		Teachers					
Student wellbeing							
Student engagement							
Staff wellbeing							
Other school data							
Parents							

Table 7.9. Template 5 completed using the sample dataset

Data theme	Types of data considered	Staff involved	Timing	Communication strategy	Analysis required	Actions taken
Academic outcomes	Learning area results Semester reporting NAFLAN results PAT results Year 12 exit results Formative assessment results	Senior leaders	End of Semesters 1 and 2	Share findings with middle leaders/teaching staff.	Check overall school spread of results and alignment with standardised tests. Look at both progress and achievement.	Consider class distributions, class structure, teacher resourcing, additional financial and resource requirements, professional learning requirements etc.
		Curriculum middle leaders	Mid-term and end of term	Share findings with teachers through department/ year-level meetings	Check subject spread of results and alignment with standardised tests. Look at both progress and achievement.	Identify classes to check in with. Identify staff who made need assistance etc.
		Teachers	At least twice per term	Discuss progress and achievement of classes with students individually and with the whole class.	Check class spread of results and alignment with standardised tests. Look at both progress and achievement.	Speak with students during class-time, as individuals and as the whole class. Contact home where required for students who are not working well or to their potential.

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Student wellbeing	Student wellbeing survey Student perception survey Bullying survey 'At risk' list of students	Student wellbeing team (pastoral leaders, senior leader – pastoral counsellors)	Mid-term and end of term	Share findings with teachers/ tutor-group teachers	Check progress of all 'at risk' students	Update 'at risk' list if required. Establish next steps for students who are struggling. Plan steps for any identified students who are new to the 'at risk' list.
Student engagement	Engagement tracking data Behaviour reports Detention records Attendance	Student wellbeing team and curriculum middle leaders	Mid-term and end of term	Share findings with teachers through full staff meeting.	Identify trends in student engagement, year level and/or subject area engagement.	Consider required intervention for individual students, groups, classes or cohorts. Design a strategy to address these needs. Contact home where necessary for students, classes or cohorts.
Staff wellbeing	Staff wellbeing survey Staff absentee rates Staff turn-over rates	Senior leaders	Once per term	Share findings with teachers through full staff meeting.	Identify trends across subsets of staff, male/female, year level, department etc.	Consider required intervention for individual teachers or groups of teachers. Design a strategy to address these needs. Where applicable, communicate your planned changes to the staff.

Other school data	Enrolment data Financial information School HR data SUD funding	Senior leaders	As required – at least once per year	Share findings with teachers through full staff meeting.	Identify trends in across the datasets	Design a strategy to address the needs identified in the data where applicable, communicate your planned changes to the wider community.
Parents	Parent perception survey	Senior leaders	Following the annual parent survey	Share findings with community through full staff meeting, newsletter article, social media etc.	Identify trends across year level and/or subject area.	Follow up with parents who requested this in the survey. Implement any required changes to address the concerns that were identified. Communicate planned changes to the community.